

This listing of claims will replace all prior versions, and listings, of claims in the application.

### LISTING OF CLAIMS

1. (currently amended) An apparatus for immediately outputting a  
5 response of a synchronous system to an asynchronous event, comprising:  
a synchronous system configured to receive an asynchronous event at its  
input to produce an output signal with a delay at its output;  
an advanced calculation unit configured to calculate an output signal  
10 identical to the output signal that will be output by the synchronous  
system in response to the asynchronous event provided at an input  
of the advanced calculation unit, the output signal being calculated  
in advance of the synchronous system producing the output signal;  
and  
a switching device that selectively passes on the output signal from the  
15 advanced calculation unit or the output signal from the synchronous  
system.

2. (previously presented) The apparatus as claimed in claim 1, wherein  
the switching device has at least two input connections, one of the at least  
20 two input connections is connected to the output connection of the  
synchronous system, and at least one of the at least two input  
connections is connected to the output of the advanced calculation  
unit.

25 3 (previously presented) The apparatus as claimed in claim 2, wherein  
the switching device has a control connection, via which the input signals  
intended to be passed on by the switching device are defined.

5           4. (previously presented)   The apparatus as claimed in claim 1, wherein  
the apparatus is configured to output the output signal from the advanced  
calculation unit in response to the occurrence of the asynchronous  
event.

10           5. (previously presented)   The apparatus as claimed in claim 1, wherein  
the apparatus is configured to output the output signal from the  
synchronous system as soon as the output signal from the  
synchronous system represents a response to the asynchronous  
event.

15           6. (previously presented)   The apparatus as claimed in claim 1, wherein  
the synchronous system is configured to output the output signal within a  
first period of time to provide the advanced calculation unit a  
sufficient amount of time after the first period of time to calculate an  
output signal to a next asynchronous event at its input.

20           7. (previously presented)   The apparatus as claimed in claim 1, wherein  
the advanced calculation unit is configured to complete advanced  
calculations to a next asynchronous event before the next  
asynchronous event occurs.